Filing Date: April 13, 2004

Title: METHOD AND SYSTEM TO CALIBRATE AN OSCILLATOR WITHIN AN RFID CIRCUIT BY SELECTING A CALIBRATION

VALUE FROM A PLURALITY OF STORED CALIBRATION VALUES

REMARKS

This communication responds to the Office Action mailed on January 23, 2006, and the references cited therewith. Claim 3 is amended, no claims are canceled, and no claims are added. As a result, claims 1-31 are now pending in this Application.

The title has been amended to be more concise, and not due to any concerns expressed by the Office. The Specification has been amended to correct a typographical error. Claim 3 has also been amended to correct a typographical error, and not for reasons related to patentability.

§102 Rejection of the Claims

Claims 1-26 were rejected under 35 U.S.C. § 102(b) as being unpatentable over Shanks et al. (U.S. 6,784,813; hereinafter "Shanks"). The Applicant does not admit that Shanks is prior art and reserves the right to swear behind this reference at a later date. In addition, because the Applicant asserts that the Office has not shown that Shanks discloses the identical invention as claimed, the Applicant traverses this rejection of the claims.

It is respectfully noted that anticipation under 35 USC § 102 requires the disclosure in a single prior art reference of each element of the claim under consideration. See Verdegaal Bros. V. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). It is not enough, however, that the prior art reference discloses all the claimed elements in isolation. Rather, "[a]nticipation requires the presence in a single prior reference disclosure of each and every element of the claimed invention, arranged as in the claim." Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)) (emphasis added). "The identical invention must be shown in as complete detail as is contained in the ... claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989); MPEP § 2131 (emphasis added).

Regarding independent claims 1 and 26 (and claims 2-10 and 27-31 depending from them), it is respectfully noted that Shanks does not teach "a tag controller to select a selected calibration value ... from a plurality of calibration values stored within a memory structure associated with the RFID circuit ... according to a first selection criterion," as claimed by the Title: METHOD AND SYSTEM TO CALIBRATE AN OSCILLATOR WITHIN AN RFID CIRCUIT BY SELECTING A CALIBRATION

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Applicant. In addition, with respect to independent claim 11 (and claims 12-20 depending from it), Shanks does not teach "storing a plurality of calibration values within a memory structure associated with the RFID circuit, each of the calibration values corresponding to a respective oscillation frequency of the oscillator," as claimed by the Applicant. Finally, with respect to independent claim 21 (and claims 22-25 depending from it), Shanks does not teach "means for selecting a selected calibration value, from a plurality of calibration values stored within a memory structure associated with the RFID circuit, according to a first selection criterion," as claimed by the Applicant.

While it is asserted in the Office Action that Shanks describes a "tag controller to select a selected calibration value ... from a plurality of calibration values stored within a memory structure associated with the RFID circuit ..., according to a first selection criterion," a careful reading of the reference reveals that calibration is actually accomplished using a timing system that calibrates the oscillator according to a dynamically varying input signal. That is:

"The present invention allows for calibration of the oscillator frequency dynamically, during circuit operation ... Timing subsystem 1023 is used to calibrate adjustable oscillator 1026 according to an input signal 2100. Input signal 2100 may be a signal that was received "off-chip" from an integrated circuit hosting timing subsystem 1023, in a wired or wireless fashion, or may also have been received "on chip." For example, input signal 2100 may be a data signal obtained from a signal received by tag 102 ... timing subsystem 1023 calibrates adjustable oscillator 1026 such that for each cycle of input signal 2100, adjustable oscillator 1026 converges as close as possible to a predetermined frequency, measured by the number of cycles or pulses, that oscillator 1026 generates during a cycle of input signal 2100." Shanks, Col. 48, 13-28.

As a matter of contrast, the claimed embodiments make use of a plurality of stored calibration values, individually selected to calibrate the oscillator. Application, FIG. 6 and para. 32. The different calibration values may correspond to different operation frequencies. Application, FIG. 11 and para. 53. This is not what is taught by Shanks, which operates to calibrate the oscillator using a dynamic input signal. No calibration values are stored and selected, as claimed by the Applicant.

Therefore, since Shanks does not teach the elements claimed by the Applicant, it is believed that claims 1-31 are in condition for allowance. Reconsideration and withdrawal of the rejection under § 102 is respectfully requested.

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§103 Rejection of the Claims

Claims 27-31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Shanks in view of Parson (U.S. 6,053,947; hereinafter "Parson"). First, the Applicant does not admit that Shanks or Parson are prior art, and reserves the right to swear behind these references in the future. Second, since a prima facia case of obviousness has not been established in each case, the Applicant respectfully traverses these rejections.

The Examiner has the burden under 35 U.S.C. § 103 to establish a prima facie case of obviousness. In re Fine, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d (BNA) 1596, 1598 (Fed. Cir. 1988). In combining prior art references to construct a prima facie case, the Examiner must show some objective teaching in the prior art or some knowledge generally available to one of ordinary skill in the art that would lead an individual to combine the relevant teaching of the references. Id. The M.P.E.P. contains explicit direction to the Examiner that agrees with the *In re Fine* court:

In order for the Examiner to establish a prima facie case of obviousness, three base criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Appellant=s disclosure. M.P.E.P. § 2142 (citing In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d (BNA) 1438 (Fed. Cir. 1991)).

An invention can be obvious even though the suggestion to combine prior art teachings is not found in a specific reference. In re Oetiker, 977 F.2d 1443, 24 U.S.P.Q.2d (BNA) 1443 (Fed. Cir. 1992). However, while it is not necessary that the cited references or prior art specifically suggest making the combination, there must be some teaching somewhere which provides the suggestion or motivation to combine prior art teachings and applies that combination to solve the same or similar problem which the claimed invention addresses. One of ordinary skill in the art will be presumed to know of any such teaching. (See, e.g., In re Nilssen, 851 F.2d 1401, 1403, 7 U.S.P.Q.2d 1500, 1502 (Fed. Cir. 1988) and In re Wood, 599 F.2d 1032, 1037, 202 U.S.P.Q. 171, 174 (C.C.P.A. 1979)). However, the level of skill is not that

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of the person who is an innovator but rather that of the person who follows the conventional wisdom in the art. Standard Oil Co. v. American Cyanamid Co., 774 F.2d 448, 474, 227 U.S.P.Q. 293, 298 (Fed. Cir. 1985). The requirement of a suggestion or motivation to combine references in a prima facie case of obviousness is emphasized in the Federal Circuit opinion, In re Sang Su Lee, 277 F.3d 1338; 61 U.S.P.Q.2D 1430 (Fed. Cir. 2002), which notes that the motivation must be supported by evidence in the record.

No proper *prima facie* case of obviousness has been established because combining the references does not teach all of the limitations set forth in the claims. First, as noted above with respect to independent claim 26, Shanks does not teach or suggest "a tag controller to select a selected calibration value ... from a plurality of calibration values stored within a memory structure associated with the RFID circuit ... according to a first selection criterion," as claimed by the Applicant. Neither does Parson.

Second, Shanks also does not teach or suggest "a machine-readable medium storing a description of an RFID circuit ..." as claimed by the Applicant. Neither does Parson, which only shows the general use of netlist languages to describe circuits.

Thus, no combination of Shanks or Parson can provide these missing elements, and independent claim 26 is nonobvious in view of Shanks or Parson. This conclusion applies with even greater force respecting dependent claims 27-31, since any claim depending from a nonobvious independent claim is also nonobvious. See M.P.E.P. § 2143.03.

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CONCLUSION

The Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone The Applicant's attorney, Mark Muller, at 210-308-5677, or the undersigned at 408-278-4042 to facilitate prosecution of this Application. If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

CHRISTOPHER J. DIORIO ET AL.

By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. Box 2938

Minneapolis, MN 55402

408-278-4042

Date	_ 03/	28/	CC

Andre L. Marais Reg. No. 48,095

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 28 day of March, 2006.

Signature

Name